WHAT IS CLAIMED IS:

1. A method for predicting the recurrence of clinical signs of a cancer in a subject, which subject has been previously treated with a chemotherapy regimen for an ErbB-1 positive tumor, said method comprising:

(a) measuring a level of at least one ErbB receptor in a sample obtained from the subject during a period of remission; and

(b) comparing the level measured in step (a) to a standard level,

wherein elevation of the measured level of at least one ErbB receptor relative to the standard level indicates that the subject is at an increased risk for the recurrence of clinical signs of the cancer.

2. A method for determining the prognosis of a cancer in a subject, which subject has been previously treated with a radiotherapy or a chemotherapy regimen for an ErbB-1 positive tumor, said method comprising:

(a) measuring a level of at least one ErbB receptor in a sample obtained from the subject during a period of remission; and

(b) comparing the level measured in step (a) to a standard level,

wherein elevation of the measured level of at least one ErbB receptor relative to the standard level indicates that the subject is at an increased risk for metastasis, recurrence or relapse of the cancer.

3. A method for predicting the development of resistance to a chemotherapy regimen in a subject, which subject has been previously treated with a chemotherapy regimen for an ErbB-1 positive tumor, said method comprising:

(a) measuring a level of at least one ErbB receptor in a sample obtained from the subject during a period of remission; and

(b) comparing the level measured in step (a) to a standard level,

wherein elevation of the measured level of at least one ErbB receptor relative to the standard level indicates that the subject is at an increased risk for development of resistance to the chemotherapy regimen.

4. The method of any of claims 1-3, wherein the ErbB receptor measured in step (a) is ErbB-1, ErbB-2, ErbB-3 or ErbB-4, or a combination thereof.

5. The method of any of claims 1-3, wherein the ErbB receptor measured in step (a) is ErbB-2, ErbB-3 or ErbB-4, or a combination thereof.

6. The method of any of claims 1-3, wherein the ErbB receptor measured in step (a) is ErbB-3 or ErbB-4, or a combination thereof.

7. The method of any of claims 1-3, wherein measuring a level of at least one ErbB receptor in step (a) comprises serially monitoring a level of the ErbB receptor.

8. The method of any of claims 1-3, wherein the cancer is selected from the group consisting of non-small-cell lung cancer, breast cancer, head and neck cancer, prostate cancer, bladder cancer, ovarian cancer, colorectal cancer, and glioblastoma.

9. The method of any of claims 1-3, wherein the chemotherapy regimen comprises treatment with IMC-C225 or ZD1839.

10. The method of any of claims 1-3, wherein measuring a level of an ErbB receptor is carried out using an ErbB receptor probe.

11. The method of any of claims 1-3, wherein measuring a level of an ErbB receptor comprises measuring an ErbB receptor related activity.

12. The method of claim 10, wherein the ErbB receptor probe is selected from the group consisting of a nucleic acid, a protein and a small molecule.

13. The method of claim 12, wherein the protein is an antibody or a fragment thereof.

14. The method of claim 12, wherein the protein is an ErbB receptor ligand or a fragment thereof.

15. The method of claim 13, wherein the antibody is a monoclonal antibody.

16. The method of claim 13, wherein the antibody immunospecifically binds an ErbB receptor.

17. The method of any of claims 1-3, wherein the sample obtained from the subject is a blood sample.

18. The method of any of claims 1-3, wherein serial monitoring is performed at least quarterly, at least bimonthly, at least monthly, at least biweekly, at least weekly, at least every three days or at least daily.

19. A kit comprising: (a) at least one reagent selected from the group consisting of an anti-ErbB receptor antibody or a fragment of an anti-ErbB receptor antibody, a nucleic acid probe capable of specifically hybridizing to an ErbB receptor mRNA, and a pair of nucleic acid primers capable of PCR amplification of at least a portion of an ErbB receptor encoding nucleic acid; and (b) instructions for use in measuring a level of at least one ErbB receptor in a subject who has been previously treated with a chemotherapy regimen for an ErbB-1 positive tumor.

20. The kit of claim 19, wherein the reagent is labeled with a detectable marker.

21. The kit of claim 20, wherein the detectable marker is a chemiluminescent, enzymatic, fluorescent or radioactive label.

22. A method for improving the effectiveness of cancer treatment in a subject with cancer, comprising:

(a) treating the subject with a treatment regimen so as to achieve remission;

(b) measuring a level of at least one ErbB receptor in a sample obtained from the subject during a period of remission; and

(c) comparing the level measured in step (b) to a standard level,

wherein elevation of the measured level of at least one ErbB receptor relative to the standard level indicates that the subject is in need of additional treatment, so as to improve the effectiveness of the cancer treatment.

23. A method for predicting the recurrence of clinical signs of a cancer in a subject, said method comprising measuring a level of at least one ErbB receptor, which is not ErbB-1, in a sample obtained from the subject during a period of remission and determining whether the subject is at an increased risk for the recurrence of clinical signs of the cancer from the level measured.

24. The method of claim 23, wherein determining whether the subject is at an increased risk for the recurrence of clinical signs of the cancer comprises comparing the measured level of at least one ErbB receptor in the sample to a standard level, wherein elevation of the measured level relative to the standard level indicates that the subject is at an increased risk for the recurrence of clinical signs of the cancer.

25. A method for determining the prognosis of a cancer in a subject, said method comprising measuring a level of at least one ErbB receptor, which is not ErbB-1, in a sample obtained from the subject during a period of remission and determining whether the subject is at an increased risk for metastasis, recurrence or relapse of the cancer from the level measured.

26. A method for predicting the development of resistance to a chemotherapy regimen in a subject said method comprising measuring a level of at least one ErbB receptor, which is not ErbB-1, in a sample obtained from the subject during a period of remission and determining whether the subject is at an increased risk for development of resistance to the chemotherapy regimen from the level measured.

27. The method of any of claims 23, 25 or 26, wherein the subject has been previously treated with a therapy regimen for an ErbB-1 positive tumor.

28. The method of claim 27, wherein the therapy regimen is a chemotherapy regimen.

29. The method of claim 27, wherein the therapy regimen is a radiotherapy regimen.

30. The method of any of claims 23, 25 or 26, wherein the ErbB receptor measured is ErbB-2, ErbB-3 or ErbB-4, or a combination thereof.

31. The method of any of claims 23, 25 or 26, wherein the ErbB receptor measured is ErbB-3 or ErbB-4, or a combination thereof.

32. The method of any of claims 23, 25 or 26, wherein the ErbB receptor measured is ErbB-3 and ErbB-4.

33. The method of any of claims 23, 25 or 26, wherein measuring a level of at least one ErbB receptor comprises serially monitoring a level of the ErbB receptor.

34. The method of any of claims 23, 25 or 26, wherein the cancer is selected from the group consisting of non-small-cell lung cancer, breast cancer, head and neck cancer, prostate cancer, bladder cancer, ovarian cancer, colorectal cancer, and glioblastoma.

35. The method of claim 28, wherein the chemotherapy regimen comprises treatment with IMC-C225 or ZD1839.

36. The method of any of claims 23, 25 or 26, wherein measuring a level of an ErbB receptor is carried out using an ErbB receptor probe.

37. The method of any of claims 23, 25 or 26, wherein measuring a level of an ErbB receptor comprises measuring an ErbB receptor related activity.

38. The method of claim 36 wherein the ErbB receptor probe is selected from the group consisting of a nucleic acid, a protein and a small molecule.

39. The method of claim 38, wherein the protein is an antibody or a fragment thereof.

40. The method of claim 38, wherein the protein is an ErbB receptor ligand or a fragment thereof.

41. The method of claim 39, wherein the antibody is a monoclonal antibody.

42. The method of claim 39, wherein the antibody immunospecifically binds an ErbB receptor.

43. The method of any of claims 23, 25 or 26, wherein the sample obtained from the subject is a blood sample.

44. The method of any of claims 23, 25 or 26, wherein serial monitoring is performed at least quarterly, at least bimonthly, at least monthly, at least biweekly, at least weekly, at least every three days or at least daily.

45. A method for improving the effectiveness of cancer treatment in a subject with cancer, comprising

(a) treating the subject with a treatment regimen so as to achieve remission;

(b) measuring a level of at least one ErbB receptor, which is not ErbB-1, in a sample obtained from the subject during a period of remission; and

(c) determining whether the subject is in need of additional treatment, so as to improve the effectiveness of the cancer treatment.

46. The method of claim 45, wherein determining whether the subject is in need of additional treatment comprises comparing the measured level of at least one ErbB receptor in the sample to a standard level, wherein elevation of the measured level relative to the standard level indicates that the subject is in need of additional treatment.